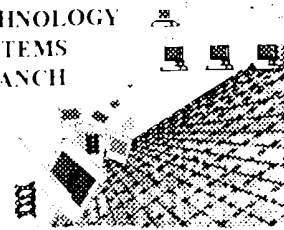


BIOTECHNOLOGY
SYSTEMS
BRANCH



0590
0620

RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/963,347
Source: 0/13
Date Processed by STIC: 6/11/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

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FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER**
VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk CD-Rom or replacement disk CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231.zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202

3. Patent and Trademark Office, 2201 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to U.S. Patent and Trademark Office,

RAW SEQUENCE LISTING

DATE: 06/11/2002

PATENT APPLICATION: US/09/963,347A

TIME: 16:50:33

Input Set : A:\DX0903Klseq1stg.txt

Output Set: N:\CRF3\06112002\I963347A.raw

65 Ile Lys Ala Ala Tyr Leu Ser Thr Ile Ser Lys Asp Leu Ile Thr Tyr
 66 15 20 25
 68 atg agt ggg acc aaa agt acc gag ttc aac aac acc gtc tct tgt agc 244
 69 Met Ser Gly Thr Lys Ser Thr Glu Phe Asn Asn Thr Val Ser Cys Ser
 70 30 35 40
 72 aat cgg cca cat tgc ctt act gaa atc cag agc cta acc ttc aat ccc 292
 73 Asn Arg Pro His Cys Leu Thr Glu Ile Gln Ser Leu Thr Phe Asn Pro
 74 45 50 55
 W--> 76 aac cgc cgn gtc cgg tcg ctc gcc aaa gaa atg ttc gcc atg aaa act 340
 77 Asn Arg Arg Val Arg Ser Leu Ala Lys Glu Met Phe Ala Met Lys Thr
 78 60 65 70
 80 aag gct gcc tta gct atc tgg tgc cca ggc tat tcg gaa act cag ata 388
 81 Lys Ala Ala Leu Ala Ile Trp Cys Pro Gly Tyr Ser Glu Thr Gln Ile
 82 75 80 85 90
 84 aat gct act cag gca atg aag aag agg aga aaa agg aaa gtc aca acc 436
 85 Asn Ala Thr Gln Ala Met Lys Lys Arg Arg Lys Arg Lys Val Thr Thr
 86 95 100 105
 88 aat aaa tgt ctg gaa caa gtg tca caa tta aa 468
 89 Asn Lys Cys Leu Glu Gln Val Ser Gln Leu
 90 110 115
 93 <210> SEQ ID NO: 2
 94 <211> LENGTH: 149
 95 <212> TYPE: PRT
 96 <213> ORGANISM: Homo sapiens
 98 <220> FEATURE:
 99 <221> NAME/KEY: misc_feature
 100 <222> LOCATION: (301)..(301)
 101 <223> OTHER INFORMATION: unknown amino
 103 <400> SEQUENCE: 2
 105 Met Gly Cys Pro Arg Met Phe Pro Phe Ala Leu Leu Tyr Val Leu Ser
 106 -30 -25 -20
 109 Val Ser Phe Arg Lys Ile Phe Ile Leu Gln Leu Val Gly Leu Val Leu
 110 -15 -10 -5
 113 Thr Tyr Asp Phe Thr Asn Cys Asp Phe Glu Lys Ile Lys Ala Ala Tyr
 114 -1 1 5 10 15
 117 Leu Ser Thr Ile Ser Lys Asp Leu Ile Thr Tyr Met Ser Gly Thr Lys
 118 20 25 30
 121 Ser Thr Glu Phe Asn Asn Thr Val Ser Cys Ser Asn Arg Pro His Cys
 122 35 40 45
 125 Leu Thr Glu Ile Gln Ser Leu Thr Phe Asn Pro Asn Arg Arg Val Arg
 126 50 55 60
 129 Ser Leu Ala Lys Glu Met Phe Ala Met Lys Thr Lys Ala Ala Leu Ala

Delete - Only 149 amino
 acid

shown in

shown in

shown in

shown

141 Gln Val Ser Gln Leu
 142 115

RAW SEQUENCE LISTING

DATE: 06/11/2002

PATENT APPLICATION: US/09/963,347A

TIME: 16:50:33

Input Set : A:\DX0903Klseq1stg.txt

Output Set: N:\CRF3\06112002\I963347A.raw

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145 <210> SEQ ID NO: 3
146 <211> LENGTH: 480
147 <212> TYPE: DNA
148 <213> ORGANISM: Homo sapiens
150 <220> FEATURE:
151 <221> NAME/KEY: CDS
152 <222> LOCATION: (1)..(477)
153 <223> OTHER INFORMATION:
156 <220> FEATURE:
157 <221> NAME/KEY: mat_peptide
158 <222> LOCATION: (85)..()
159 <223> OTHER INFORMATION:
162 <400> SEQUENCE: 3
163 atg ttc cct ttt gcc tta cta tat gtt ctg tca gtt tct ttc agg aaa      48
164 Met Phe Pro Phe Ala Leu Leu Tyr Val Leu Ser Val Ser Phe Arg Lys
165          -25          -20          -15
167 atc ttc atc tta caa ctt gta ggg ctg gtg tta act tac gac ttc act      96
168 Ile Phe Ile Leu Gln Leu Val Gly Leu Val Leu Thr Tyr Asp Phe Thr
169          -10          -5          -1  1
171 aac tgt gac ttt gag aag att aaa gca gcc tat ctc agt act att tct      144
172 Asn Cys Asp Phe Glu Lys Ile Lys Ala Ala Tyr Leu Ser Thr Ile Ser
173 5          10          15          20
175 aaa gac ctg att aca tat atg agt ggg acc aaa agt acc gag ttc aac      192
176 Lys Asp Leu Ile Thr Tyr Met Ser Gly Thr Lys Ser Thr Glu Phe Asn
177          25          30          35
179 aac acc gtc tct tgt agc aat cgg cca cat tgc ctt act gaa atc cag      240
180 Asn Thr Val Ser Cys Ser Asn Arg Pro His Cys Leu Thr Glu Ile Gln
181          40          45          50
183 agc cta acc ttc aat ccc acc gcc ggc tgc gcg tcg ctc gcc aaa gaa      288
184 Ser Leu Thr Phe Asn Pro Thr Ala Gly Cys Ala Ser Leu Ala Lys Glu
185          55          60          65
187 atg ttc gcc atg aaa act aaq gct gcc tta gct atc tgg tgc cca gcc      336
188 Met Phe Ala Met Lys Thr Lys Ala Ala Leu Ala Ile Trp Cys Pro Gly
189          70          75          80
191 tat tcg gaa act caa ata aat gct act cag gca atg aaq aaq aag aga      384
192 Tyr Ser Glu Thr Gln Ile Asn Ala Thr Gln Ala Met Lys Lys Arg Arg
193 85          90          95          100
195 aaa agg aaa gtc aca acc aat aaa tgt ctg gaa caa gtg tca caa tta      432
196 Lys Arg Lys Val Thr Thr Asn Lys Cys Leu Glu Gln Val Ser Gln Leu
197          105          110          115
199 caa gga ttg tgg cgt cgc ttc aat cga cct tta ctg aaa caa caa taa      480
200 Gln Gly Leu Trp Arg Arg Phe Asn Arg Pro Leu Leu Lys Gln Gln

```

1. The sequence of the CDS is as follows:

1. The sequence of the CDS is as follows:

211 Met Phe Pro Phe Ala Leu Leu Tyr Val Leu Ser Val Ser Phe Arg Lys

RAW SEQUENCE LISTING

DATE: 06/11/2002

PATENT APPLICATION: US/09/963,347A

TIME: 16:50:33

Input Set : A:\DX0903K1seq1stg.txt

Output Set: N:\CRF3\06112002\I963347A.raw

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212          -25          -20          -15
215 Ile Phe Ile Leu Gln Leu Val Gly Leu Val Leu Thr Tyr Asp Phe Thr
216          -10          -5          -1 1
219 Asn Cys Asp Phe Glu Lys Ile Lys Ala Ala Tyr Leu Ser Thr Ile Ser
220 5          10          15          20
223 Lys Asp Leu Ile Thr Tyr Met Ser Gly Thr Lys Ser Thr Glu Phe Asn
224          25          30          35
227 Asn Thr Val Ser Cys Ser Asn Arg Pro His Cys Leu Thr Glu Ile Gln
228          40          45          50
231 Ser Leu Thr Phe Asn Pro Thr Ala Gly Cys Ala Ser Leu Ala Lys Glu
232          55          60          65
235 Met Phe Ala Met Lys Thr Lys Ala Ala Leu Ala Ile Trp Cys Pro Gly
236          70          75          80
239 Tyr Ser Glu Thr Gln Ile Asn Ala Thr Gln Ala Met Lys Lys Arg Arg
240 85          90          95          100
243 Lys Arg Lys Val Thr Thr Asn Lys Cys Leu Glu Gln Val Ser Gln Leu
244          105          110          115
247 Gln Gly Leu Trp Arg Arg Phe Asn Arg Pro Leu Leu Lys Gln Gln
248          120          125          130
251 <210> SEQ ID NO: 5
252 <211> LENGTH: 176
253 <212> TYPE: PRT
254 <213> ORGANISM: ovine, bovine?
256 <400> SEQUENCE: 5
258 Met Phe His Val Ser Phe Arg Tyr Ile Phe Gly Ile Pro Pro Leu Ile
259 1          5          10          15
262 Leu Val Leu Leu Pro Val Ala Ser Ser Asp Cys Asp Phe Ser Gly Lys
263          20          25          30
266 Asp Gly Gly Ala Tyr Gln Asn Val Leu Met Val Ser Ile Asp Asp Leu
267          35          40          45
270 Asp Asn Met Ile Asn Phe Asp Ser Asn Cys Leu Asn Asn Glu Pro Asn
271          50          55          60
274 Phe Phe Lys Lys His Ser Cys Asp Asp Asn Lys Glu Ala Ser Phe Leu
275 65          70          75          80
278 Asn Arg Ala Ala Arg Lys Leu Lys Gln Phe Leu Lys Met Asn Ile Ser
279          85          90          95
282 Asp Asp Phe Lys Leu His Leu Ser Thr Val Ser Gln Gly Thr Leu Thr
283          100          105          110
286 Leu Leu Asn Cys Thr Ser Lys Gly Lys Gly Arg Lys Pro Pro Ser Leu
287          115          120          125
290 Gly Glu Ala Gln Pro Thr Lys Asn Leu Glu Glu Asn Lys Ser Leu Lys
291          130          135          140

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252 <211> LENGTH: 176
253 <212> TYPE: PRT

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RAW SEQUENCE LISTING

DATE: 06/11/2002

PATENT APPLICATION: US/09/963,347A

TIME: 16:50:33

Input Set : A:\DX0903Klseq1stg.txt

Output Set: N:\CRF3\06112002\I963347A.raw

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305 <213> ORGANISM: bovine
307 <400> SEQUENCE: 6
309 Met Phe His Val Ser Phe Arg Tyr Ile Phe Gly Ile Pro Pro Leu Ile
310 1 5 10 15
313 Leu Val Leu Leu Pro Val Ala Ser Ser Asp Cys Asp Ile Ser Gly Lys
314 20 25 30
317 Asp Gly Gly Ala Tyr Gln Asn Val Leu Met Val Asn Ile Asp Asp Leu
318 35 40 45
321 Asp Asn Met Ile Asn Phe Asp Ser Asn Cys Leu Asn Asn Glu Pro Asn
322 50 55 60
325 Phe Phe Lys Lys His Ser Cys Asp Asp Asn Lys Glu Ala Ser Phe Leu
326 65 70 75 80
329 Asn Arg Ala Ser Arg Lys Leu Arg Gln Phe Leu Lys Met Asn Ile Ser
330 85 90 95
333 Asp Asp Phe Lys Leu His Leu Ser Thr Val Ser Gln Gly Thr Leu Thr
334 100 105 110
337 Leu Leu Asn Cys Thr Ser Lys Gly Lys Gly Arg Lys Pro Pro Ser Leu
338 115 120 125
341 Ser Glu Ala Gln Pro Thr Lys Asn Leu Glu Glu Asn Lys Ser Ser Lys
342 130 135 140
345 Glu Gln Lys Lys Gln Asn Asp Leu Cys Phe Leu Lys Ile Leu Leu Gln
346 145 150 155 160
349 Lys Ile Lys Thr Cys Trp Asn Lys Ile Leu Arg Gly Ile Lys Glu His
350 165 170 175
353 <210> SEQ ID NO: 7
354 <211> LENGTH: 177
355 <212> TYPE: PRT
356 <213> ORGANISM: Homo sapiens
358 <400> SEQUENCE: 7
360 Met Phe His Val Ser Phe Arg Tyr Ile Phe Gly Leu Pro Pro Leu Ile
361 1 5 10 15
364 Leu Val Leu Leu Pro Val Ala Ser Ser Asp Cys Asp Ile Glu Gly Lys
365 20 25 30
368 Asp Gly Lys Gln Tyr Glu Ser Val Leu Met Val Ser Ile Asp Gln Leu
369 35 40 45
372 Leu Asp Ser Met Lys Glu Ile Gly Ser Asn Cys Leu Asn Asn Glu Phe
373 50 55 60
376 Asn Phe Phe Lys Arg His Ile Cys Asp Ala Asn Lys Glu Gly Met Phe
377 65 70 75 80
380 Leu Phe Arg Ala Ala Arg Lys Leu Arg Gln Phe Leu Lys Met Asn Ser
381 85 90 95
384 Thr Gly Asp Phe Asp Leu His Leu Leu Lys Val Ser Glu Gly Thr Thr

```

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387 145 150 155 160

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/963,347A

DATE: 06/11/2002
TIME: 16:50:34

Input Set : A:\DX0903K1seq1stg.txt
Output Set: N:\CRF3\06112002\I963347A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 301